

# **The Virginia Annual Recycling Rate Report**

## **Calendar Year 2005 Summary**



**October 2006**

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## **RECYCLING RATES IN VIRGINIA FOR CALENDAR YEAR 2005**

The Virginia Department of Environmental Quality (DEQ) has completed its review of the recycling rate data reported for calendar year (CY) 2005. The data for this summary report was compiled from the reports submitted by the 74 solid waste planning units (SWPUs), and represents recycling information from all 325 Virginia cities, counties and towns. In some cases, reported data was adjusted for consistency with the Virginia Solid Waste Planning Regulation (9 VAC 20-130 et. seq.).

### **Statewide Average Recycling Rate Data**

From the data, DEQ has calculated a statewide average recycling rate for CY 2005 of 32.2 %, based on:

2,757,442 tons of material recycled, and 8,554,784 tons of waste generated.

In comparison:

The statewide average recycling rate for CY 2004 was 29.8 % with:

2,688,200 tons of material recycled, and 9,016,087 tons of waste generated.

The statewide average recycling rate for CY 2003 was 30.3 % with:

2,822,416 tons of material recycled, and 9,328,458 tons of waste generated.

### **Urban Areas Report Highest Rates**

Forty-five (45) of the 74 SWPUs reported recycling rates of 25 % or greater in CY 2005. Most of the higher recycling rates were reported in the urban areas of Virginia. For CY 2005, these areas reported a total of 2,343,755 recycled tons, or 85 % of all recyclables collected in Virginia, and had a calculated average recycling rate of 34.6 %. These urban areas include:

<u>Urban Area</u>	<b>Recycling Rates by Year</b>	
	<u><b>CY 2005</b></u>	<u><b>CY 2004</b></u>
<b>Bristol Area</b>	<b>39.4 %</b>	<b>40.6 %</b>
<b>Roanoke Area</b>	<b>33.9 %</b>	<b>32.3 %</b>
<b>Lynchburg Area</b>	<b>32.8 %</b>	<b>31.7 %</b>
<b>Northern Shenandoah Valley</b>	<b>26.0 %</b>	<b>29.7 %</b>
<b>Richmond Area</b>	<b>45.2 %</b>	<b>44.6 %</b>
<b>Fredericksburg Area</b>	<b>30.6 %</b>	<b>28.8 %</b>
<b>Northern Virginia</b>	<b>32.0 %</b>	<b>32.8 %</b>
<b>Hampton Roads</b>	<b>36.1 %</b>	<b>29.8 %</b>

### **Trends Observed in CY 2005 Reports**

In reviewing the statewide totals from the recycling rate reports, the following trends were observed:

- **PRMs Recycled      2 % increase over CY 2004**  
*(PRMs = Principal Recyclable Materials such as paper, metals, plastics, etc.)*
- **SRMs                      11 % increase over CY 2004**  
**Recycled and Reused**  
*(SRMs = Supplemental Recyclable Materials such as waste tires, used oil, electronics, debris materials, etc.)*
- **MSW disposed      8 % decrease over CY 2004**  
*(MSW disposed = waste delivered to a sanitary landfill or incinerator for disposal)*

As a subset of these categories, the following were reported:

- **Metals                      16 % increase over CY 2004**
- **Paper                      2% decrease over CY 2004**
- **Commingled              40 % increase over CY 2004, as would be expected with the growing use of single-stream collections**
- **Used oil                      22 % increase over CY 2004**
- **Electronics              75 % increase over CY 2004, as new programs and eCycling vendors expanded collection opportunities**
- **Plastics                      29 % decrease over CY 2004, due to more accurate reporting of MSW derived plastics only**
- **Glass                      15 % decrease over CY 2004**

**Most other categories experienced modest changes as compared to CY 2004.**

**While it appears that recycling increased significantly in CY 2005, the 2 ½ percentage point increase was due primarily to a continuing trend of less tons of Municipal Solid Waste (MSW) reported as generated in Virginia. This is due both to better data reporting by SWPUs and the actual national and Virginia trends of less actual MSW generation, especially in 2005.**

#### **SWPUs Meeting the Required Rate**

**Each year proportionally more of the reporting entities or SWPUs are meeting the required recycling rate:**

<u>Year</u>	<u># Reports</u>	<u>25% or Greater</u>	<u>Less than 25 %</u>
CY 2003	96	34	62
CY 2004	95	46	49
CY 2005	74	45	29

**For CY 2005, only twelve (12) SWPUs were below 15 %, but of these, five (5) were below 10 %. As was evidenced in previous years, the SWPUs reporting recycling rates less than 25 % are mostly rural in makeup, with limited recycling resources and access to markets.**

#### **Solid Waste Management Planning and Recycling Action Plans**

**DEQ continues to review the required Solid Waste Management Plans (SWMPs) submitted by the SWPUs for completeness, including locality or regional recycling program information. For the plans already reviewed and in which the SWPU has reported less than a 25 % recycling rate for CY 2004, DEQ has asked for a Recycling Action Plan (RAP) to identify specific elements of the recycling program that will be changed or improved in order for the SWPU to reach a 25 % recycling rate. The RAP requires both a commitment by the SWPU to provide resources necessary to improve its program, as well as a timeline for achieving the program elements. The RAP must be adopted by the administrative governmental board(s) for all localities covered by the Solid Waste**

Management Plan, and then approved by DEQ. Regular reporting on the progress made on the RAP elements is required.

### **Recycling Legislation 2006**

For CY 2006 reporting (due April 30, 2007), solid waste planning units with populations less than 100 persons per square mile or with unemployment levels at least 50 % above the statewide average are required to meet a 15 % recycling rate; all others are required to meet the original 25 % recycling rate. Legislation prepared by the Virginia Recycling Markets Development Council and passed by the 2006 General Assembly established this two-tiered recycling mandate. The legislative language can be found at the following web address for the *Code of Virginia*: <http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+10.1-1411>.

### **Recycling Data Concerns**

The Technical Advisory Committee (TAC) studying changes in the recycling requirements as a component of the *Regulations for Solid Waste Management Planning* (<http://www.deq.virginia.gov/waste/wastereg130.html>) due to the 2006 legislation requested the following addition to this report:

*“Due to the complexity and difficulty in obtaining data, this report reflects the best efforts of the planning units to represent recycling in Virginia”*

In addition, the TAC is on record encouraging the reporting of recycling data by all sectors in order to make these numbers as representative of the actual condition as possible:

*“Entities engaged in the collection, processing and marketing of recyclable materials should provide data for incorporation into the recycling rate calculation, when requested by the planning unit”.*

## Recycling Rates in Virginia -- CY 2005

### Recycling Rates and Data \*

REPORTING ENTITY	CY 2005 Recycling Rate (%)	CY 2005 Total Recycled Tons (PRMs + SRMs)	CY 2005 Total MSW Generation Tons (PRMs + SRMs + MSW disposed)
<b>Statewide Totals</b>	<b>32.2 % Average Statewide</b>	<b>2,757,442</b>	<b>8,554,784</b>
Accomack County SWPU	15.3	6,251	40,972
Alexandria (City) SWPU	24.5	47,177	196,767
Alleghany Highlands SWPU	16	3,948	24,704
Amelia County SWPU	26.3	3,292	12,502
Amherst County SWPU	25	7,637	30,517
Appomattox County SWPU	25	2,589	10,333
Arlington County SWPU	40.4	109,698	271,785
Augusta –Staunton-Waynesboro SWPU	25.6	35,360	138,316
Bath County SWPU	6.3	445	7,089
Bedford (City) SWPU	25.2	2,174	8,636
Bedford County SWPU	32.3	20,288	62,775
Botetourt County SWPU	29.3	8,778	29,962
Bristol (City) SWPU	38.4	16,760	43,653
Brunswick County SWPU	6.9	1,472	21,181
Buckingham County SWPU	23.3	3,621	15,564
Campbell County SWPU	26.1	14,828	56,893
Caroline County SWPU	12.3	1,569	12,709

<b>REPORTING ENTITY</b>	<b>CY 2005 Recycling Rate (%)</b>	<b>CY 2005 Total Recycled Tons (PRMs + SRMs)</b>	<b>CY 2005 Total MSW Generation Tons (PRMs + SRMs + MSW disposed)</b>
<b>Carroll-Grayson-Galax SWPU</b>	<b>26.1</b>	<b>10,334</b>	<b>39,568</b>
<b>Central Virginia Waste Management Authority SWPU (Counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan, Prince George; Cities of Richmond, Hopewell, Colonial Heights and Petersburg)</b>	<b>45.2</b>	<b>386,558</b>	<b>855,275</b>
<b>Craig County SWPU</b>	<b>26.6</b>	<b>1,001</b>	<b>3,766</b>
<b>Culpeper County SWPU</b>	<b>28.9</b>	<b>12,665</b>	<b>43,806</b>
<b>Cumberland Plateau Regional Waste Management Authority SWPU (Buchanan, Dickenson and Russell Counties)</b>	<b>34.2</b>	<b>26,573</b>	<b>77,758</b>
<b>Danville (City) SWPU</b>	<b>28.6</b>	<b>11,014</b>	<b>38,517</b>
<b>Fairfax (City) SWPU</b>	<b>37.8</b>	<b>18,395</b>	<b>48,606</b>
<b>Fairfax County SWPU</b>	<b>29.9</b>	<b>424,927</b>	<b>1,420,385</b>
<b>Falls Church (City) SWPU</b>	<b>45.6</b>	<b>5,893</b>	<b>12,293</b>
<b>Fauquier County SWPU</b>	<b>26.8</b>	<b>23,454</b>	<b>87,454</b>
<b>Floyd County SWPU</b>	<b>15.4</b>	<b>2,063</b>	<b>13,368</b>
<b>Franklin County SWPU</b>	<b>16.8</b>	<b>6,968</b>	<b>41,493</b>
<b>Gloucester County SWPU</b>	<b>25.0</b>	<b>11,467</b>	<b>45,931</b>
<b>Greater Rockingham SWPU</b>	<b>28.1</b>	<b>15,430</b>	<b>54,846</b>
<b>Harrisonburg (City) SWPU</b>	<b>25.7</b>	<b>15,971</b>	<b>62,077</b>
<b>Herndon (Town) SWPU</b>	<b>34.9</b>	<b>9,046</b>	<b>25,884</b>
<b>Highland County SWPU</b>	<b>26.1</b>	<b>580</b>	<b>2,224</b>



<b>REPORTING ENTITY</b>	<b>CY 2005 Recycling Rate (%)</b>	<b>CY 2005 Total Recycled Tons (PRMs + SRMs)</b>	<b>CY 2005 Total MSW Generation Tons (PRMs + SRMs + MSW disposed)</b>
<b>King George County SWPU</b>	<b>14.9</b>	<b>1,662</b>	<b>11,137</b>
<b>Lee County SWPU</b>	<b>9.8</b>	<b>1,776</b>	<b>18,137</b>
<b>Loudoun County SWPU</b>	<b>31.9</b>	<b>86,762</b>	<b>272,182</b>
<b>Louisa County SWPU</b>	<b>22.4</b>	<b>4,512</b>	<b>20,135</b>
<b>Lunenburg County SWPU</b>	<b>14.9</b>	<b>1,725</b>	<b>11,564</b>
<b>Lynchburg (City) SWPU</b>	<b>36.7</b>	<b>73,337</b>	<b>199,574</b>
<b>Madison County SWPU</b>	<b>21.5</b>	<b>2,995</b>	<b>13,910</b>
<b>Manassas (City) SWPU</b>	<b>29.5</b>	<b>12,775</b>	<b>43,315</b>
<b>Manassas Park (City) SWPU</b>	<b>8.5</b>	<b>569</b>	<b>6,685</b>
<b>Martinsville (City)/Henry County SWPU</b>	<b>43.4</b>	<b>39,013</b>	<b>89,896</b>
<b>Montgomery Regional Solid Waste Authority SWPU (Montgomery County, Blacksburg and Christiansburg)</b>	<b>35.7</b>	<b>39,127</b>	<b>109,732</b>
<b>Mount Rogers PDC SWPU (Counties of Bland, Smyth, Washington, and Wythe)</b>	<b>23.1</b>	<b>24,298</b>	<b>105,166</b>
<b>Newport News (City) SWPU</b>	<b>28.4</b>	<b>58,808</b>	<b>206,756</b>
<b>New River Resource Authority SWPU (Counties of Pulaski and Giles; City of Radford)</b>	<b>31.0</b>	<b>22,714</b>	<b>73,361</b>
<b>Northampton County SWPU</b>	<b>1.8</b>	<b>385</b>	<b>20,900</b>
<b>Northern Neck PDC SWPU (Counties of Lancaster, Northumberland, Richmond and Westmoreland)</b>	<b>20.7</b>	<b>12,199</b>	<b>59,014</b>
<b>Northern Shenandoah Valley Regional Commission SWPU (Counties of Clarke, Frederick, Shenandoah, Warren and Page; City of Winchester)</b>	<b>26</b>	<b>72,763</b>	<b>279,764</b>

<b>REPORTING ENTITY</b>	<b>CY 2005 Recycling Rate (%)</b>	<b>CY 2005 Total Recycled Tons (PRMs + SRMs)</b>	<b>CY 2005 Total MSW Generation Tons (PRMs + SRMs + MSW disposed)</b>
<b>Nottoway County SWPU</b>	<b>13.9</b>	<b>3,406</b>	<b>24,533</b>
<b>Orange County SWPU</b>	<b>10.5</b>	<b>2,896</b>	<b>27,613</b>
<b>Patrick County SWPU</b>	<b>10.6</b>	<b>971</b>	<b>9,200</b>
<b>Pittsylvania County SWPU</b>	<b>13.7</b>	<b>4,945</b>	<b>36,110</b>
<b>Prince Edward - Cumberland SWPU</b>	<b>20.4</b>	<b>5,804</b>	<b>28,473</b>
<b>Prince William County SWPU</b>	<b>35.4</b>	<b>160,643</b>	<b>453,598</b>
<b>Rappahannock County SWPU</b>	<b>17.8</b>	<b>1,723</b>	<b>9,680</b>
<b>Rappahannock Regional Solid Waste Management Board SWPU (County of Stafford and City of Fredericksburg)</b>	<b>30.7</b>	<b>53,890</b>	<b>175,788</b>
<b>Roanoke (City) SWPU</b>	<b>39.9</b>	<b>29,601</b>	<b>74,187</b>
<b>Roanoke County SWPU</b>	<b>32.8</b>	<b>22,941</b>	<b>70,015</b>
<b>Rockbridge – Lexington – Buena Vista SWPU</b>	<b>22.3</b>	<b>6,764</b>	<b>30,278</b>
<b>Salem (City) SWPU</b>	<b>28.3</b>	<b>10,273</b>	<b>36,341</b>
<b>Scott County SWPU</b>	<b>20.5</b>	<b>2,950</b>	<b>14,397</b>
<b>Southeastern Public Service Authority SWPU (Counties of Isle of Wight and Southampton; Cities of Chesapeake, Franklin, Norfolk, Portsmouth, Suffolk, and Virginia Beach)</b>	<b>40.2</b>	<b>448,149</b>	<b>1,115,910</b>
<b>Southern Crater Region SWPU (Counties of Dinwiddie, Greensville, Surry, and Sussex; City of Emporia)</b>	<b>19.8</b>	<b>14,559</b>	<b>73,379</b>
<b>Southside Regional PSA SWPU (Counties of Charlotte, Halifax and Mecklenburg)</b>	<b>15.2</b>	<b>17,056</b>	<b>112,015</b>
<b>Spotsylvania County SWPU</b>	<b>31.9</b>	<b>39,873</b>	<b>124,875</b>

REPORTING ENTITY	CY 2005 Recycling Rate (%)	CY 2005 Total Recycled Tons (PRMs + SRMs)	CY 2005 Total MSW Generation Tons (PRMs + SRMs + MSW disposed)
Tazewell County SWPU	15.7	10,894	69,593
Thomas Jefferson PDC SWPU (Counties of Albemarle, Fluvanna, Greene and Nelson; City of Charlottesville)	26	53,898	207,269
Vienna (Town) SWPU	55.6	7,079	12,727
Vinton (Town) SWPU	28.3	1,639	5,795
Virginia Peninsulas Public Service Authority SWPU (Counties of Essex, James City, King & Queen, Mathews, Middlesex, and York; Cities of Hampton, Poquoson, and Williamsburg)	29.9	114,512	382,740
Wise County SWPU	30.1	18,333	60,808
<b>STATEWIDE TOTALS CY 2005</b>	<b>32.2 %</b>	<b>2,757,442 Tons</b>	<b>8,554,784 Tons</b>

\* All data based on adjustments by DEQ for consistency with 9VAC-20-130-10 and 9VAC20-130-120.

**PRMs = Principal Recyclable Materials**

**SRMs = Supplemental Recyclable Materials**

**MSW Disposed = Municipal solid waste delivered to sanitary landfills or incinerators for disposal.**

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# Recycling Rate Report Summary

## Virginia Localities Reporting Rate Information for CY 2005

**74 Recycling Rate Reports**, representing **325 Virginia localities** and the **74 Solid Waste Management Planning Units** were received. This represents a return rate of 100%. Totals for all reports are presented below:

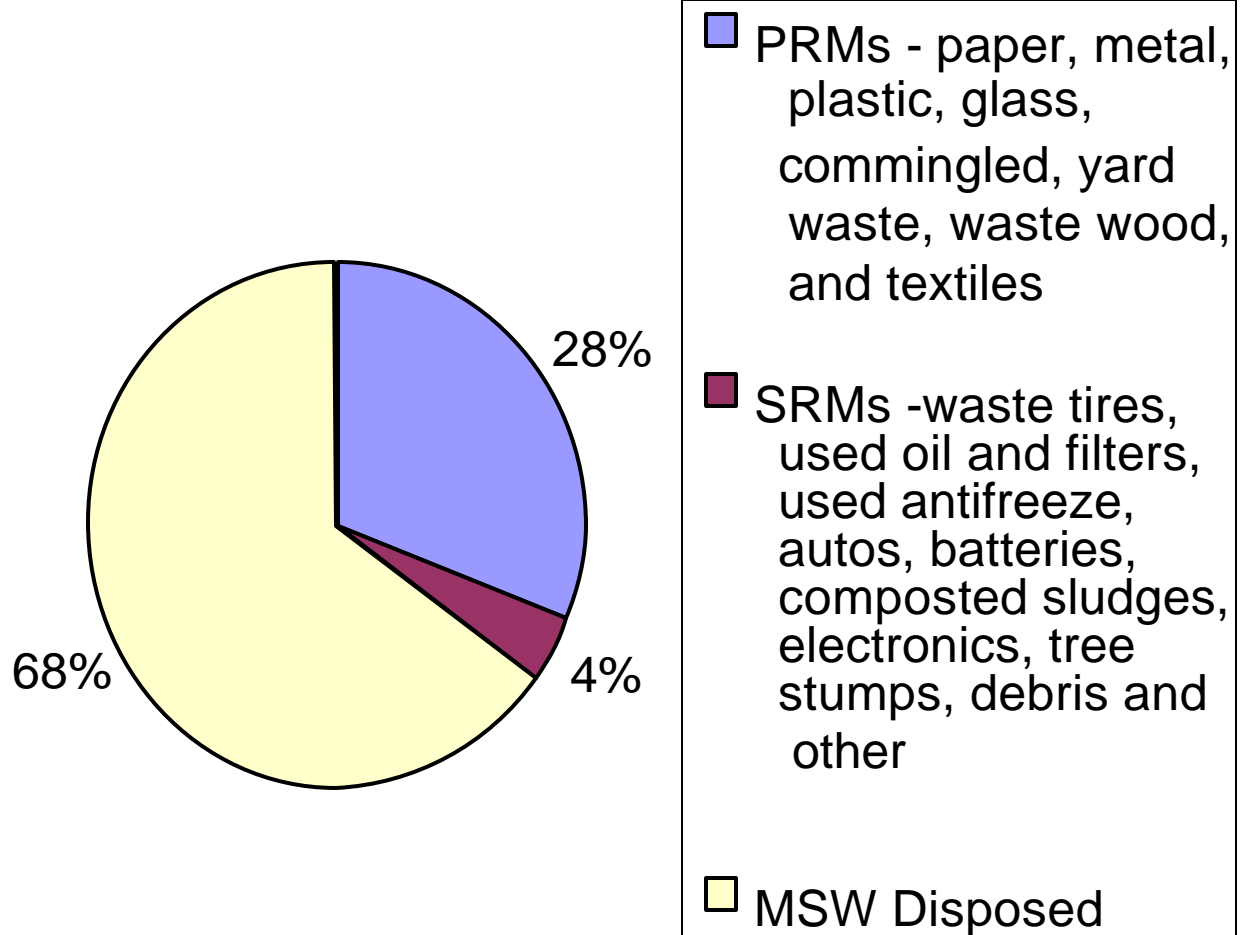
Principal Recyclable Material (PRM)		Supplemental Recyclable Material (SRM)				Total MSW Disposed	
		Recycled SRM		Reused SRM			
Paper	965,016	WasteTires	74,594	Const. Waste	2,105	Household Waste	4,158,119
Metal	585,014	Used Oil	66,067	Demol. Waste	681	Commercial Waste	1,552,968
Plastic	30,086	Used Oil Filters	1,228	Debris Waste	37,883	Institutional Waste	66,609
Glass	39,963	Used Antifreeze	3,917	Ash	94,200	Other:**	19,646
Commingled	84,510	Auto Bodies	17,398	Other:	1,228		
Yard Waste	486,289	Batteries	24,132				
Waste Wood	169,469	Sludge (Composted)	15,175				
Textiles	38,363	Electronics	2,060				
		Tree Stumps (>6" Diameter)	286				
<b>Total PRM (P) (Tons)</b>	<b>2,398,710</b>	Other:	17,778			<b>TOTAL MSW (Tons)</b>	<b>5,797,342</b>
		<b>TOTAL Recycled SRM (Tons)</b>	<b>222,635</b>	<b>TOTAL Reused SRM (Tons)</b>	<b>136,097</b>	<b>Recycling Rate:</b>	
						<b>(P+S)/(P+S+M) x 100</b>	<b>32.2%</b>
						<i>(2,757,442/8,554,784 X 100)</i>	
						** May include total amounts of SRM generated	
			<b>Total SRM (S) (Tons)</b>	<b>358,732</b>			

\* All data based on adjustments by DEQ for consistency with 9VAC-20-130-10 and 9VAC20-130-120.

# RECYCLING IN VIRGINIA, CY 2005

**Statewide Average Recycling Rate of 32.2%**

## MSW Management – Recycling and Disposal



**PRMs = Principal Recyclable Materials**

**SRMs = Supplemental Recyclable Materials**

**MSW Disposed = Municipal solid waste delivered to sanitary landfills or incinerators for disposal.**